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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/939,442 09/29/97 NA

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EXAMINER

WM01/0913

SUGHRUE MION ZINN MACPEAK SEAS
2100 PENNSYLVANIA AVENUE
WASHINGTON DC 20037-3202

ONIAKIL, C

ART UNIT

PAPER NUMBER

2615

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09/13/01

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/939,442

Applicant(s)
Na et al

Examiner
Christopher Onuaku

Art Unit
2615



– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 1, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 17-45, 48-50, and 53-68 is/are rejected.
- 7) ☒ Claim(s) 13-16, 46, 47, 51, and 52 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

Art Unit: 2615

DETAILED ACTION

Continued Prosecution Application

1. The request filed on 6/1/01 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/939,442 is acceptable and a CPA has been established. An action on the CPA follows.

Response to Arguments

2. Applicant's arguments with respect to claims 1-12,22,25,26,30-45,48050,61-63&67 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 17-21,23,24,27-29,53-57,59,60,64&65 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 2615

5. Claims 17,20,23,27,28,29,53,56,57,59,60,64,65,66 recite displaying PSI on the OSG display which is not disclosed in the applicant's specification. The applicant's specification instead discloses displaying program guide information on the OSG display.

6. Claims 18,19,54&55 recite OSG generator mixing the PSI with a graphic signal of a background screen which is not disclosed in the applicant's specification. The applicant's specification instead discloses the OSG generator mixing the program guide information with a graphic signal of a background screen.

7. Claims 21,23,24,27,28,29,57,59,60,64,65&66 parsing the PSI from the transport stream, which is not disclosed in the applicant's specification. The applicant's specification instead discloses parsing program guide information.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2615

9. Claims 1,3,6-8,10-12,22,25-26,30-32,34-36,39-41,43-45,48-50,58,61-63&67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagihara et al (US 6,233,393) in view of Staats et al (US 5,940,600).

Regarding claim 1, Yanagihara et al disclose a device which receives and decodes digital broadcasts which includes processing performed when undecoded video data and audio data are input from an external recording/playback device, comprising:

a) the claimed input device (see Fig.1, and front panel 10; col.3, lines 36-44 to col.4, line 4). Yanagihara fails to disclose an input device with IEEE-1394 interface.

Staats et al teach a computer system with isochronous channel having linked list devices through IEEE-1394 digital interface 20,20a-20f, including mouse 46 (input device), keyboard 42 (input device), VCR 36 (digital recorder) (see Fig.1; col.3, lines 4-22). Here, Staats teaches that the IEEE-1394 digital interface can be added to devices such as input device and a VCR and computer. Providing an input device with IEEE-1394 interface provides the desirable advantage of isochronous and asynchronous data transmission and reception. It would have been obvious to modify Yanagihara by adding IEEE-1394 interface to connect the front panel 10 (input device) to the microcomputer 9 of Yanagihara, as taught by Staats, since this provides the desirable advantage of isochronous and asynchronous data transmission and reception

b) with Yanagihara modified with Staats, the claimed receiver and "first" digital interface (see modified microcomputer 9, now with IEEE-1394 digital interface; and col.3, lines 58 to

Art Unit: 2615

col.4, line 4 of Yanagihara), here since the microcomputer 9 includes IEEE-1394 digital interface, microcomputer 9 transmits and receives data isochronously and asynchronously; and

c) the claimed recording/reproducing device including a “second” digital interface (see Fig.10,10A&10B, the digital interface 36; col.9, line 18 to col.10, line 19; col.10, lines 37-51);

d) Yanagihara, now modified with Staats, discloses wherein the control command is not included in program specific information (PSI), here, it would have been obvious that the control command would be transmitted asynchronously and would not need to be included in the PSI of the transport stream, since the IEEE-1394 digital interface transmission and reception includes asynchronous transmission and reception.

Regarding claim 3, the claimed limitations of claim 3 are accommodated in the discussions of claim 1 above including the “first” and “second” digital interfaces (also see col.6., line 34 to col.7, line 12). Additionally see microcomputer 9 of Fig.1 (the “first” signal processor) in col.5, line 34 to col.7, line 19); “second” signal processor (see signal processor computer 28, multiplexor 24 and demultiplexer 32 of Fig.10A; col. 10, 14-51).

Regarding claim 6, Yanagihara, modified with Staats, discloses wherein the “first” digital interface generates the program number control command based on parsed PSI (see col.4, lines 48-53; and col.5, line 34 to col.7, line 18).

Art Unit: 2615

Regarding claim 7, Yanagihara, modified with Staats, discloses wherein the “first” and “second” digital interfaces are each an IEEE 1394 interface (see claim 1 and also col.10, lines 14-19).

Regarding claim 8, Yanagihara, modified with Staats, discloses wherein the “first” digital interface transfers the transport stream as isochronous packets during an isochronous transfer “mode”, and transfers the program number as asynchronous packets during an asynchronous transfer “mode” using “ control command set”(see claim 1), here the first digital interface conforms to IEEE-1394 standard..

Regarding claim 10, Yanagihara. modified with Staats, discloses wherein the “first” digital interface transfers a multi-program transport stream isochronous packets in an isochronous transfer “mode” (see claim 1 discussions), and the “second” digital interface transfers a “single program” (packet) transport stream as isochronous packets in the isochronous transfer mode during a playback “mode” (see col.7, lines 5-12). Here the DVCR has a digital interface 36 (“second” digital interface) of Fig.10A.

Regarding claim 11, Yanagihara, modified with Staats, discloses wherein the “first” digital interface transfers a multi-program transport stream isochronous packets in an isochronous transfer “mode” (see claim 1 discussions), and the “second” digital interface transfers a “multi-

Art Unit: 2615

program” transport stream as isochronous packets in the isochronous transfer mode during a playback “mode”. This is inherent in the digital interface of Yanagihara since both digital interface of modified microprocessor 9 of Fig.1 and digital interface 36 of the DVCR of Fig.10A have the same construction (see col.10, lines 20-24), and both conform to the IEEE-1394 standard.

Regarding claim 12, Yanagihara, modified with Staats, discloses wherein the “first” digital interface transfers a single program transport stream isochronous packets in an isochronous transfer “mode” (This is inherent in the digital interface of modified Yanagihara since both digital interface of modified microcomputer 9 of Fig.1 and digital interface 36 of the DVCR of Fig.10A have the same construction (see col.10, lines 20-24). and the “second” digital interface transfers a “single program” transport stream as isochronous packets in the isochronous transfer mode during a playback “mode”(see col.7, lines 5-12). Here the DVCR has a digital interface 36 (“second” digital interface) of Fig.10A.

Regarding claim 22, the claimed limitations of claim 22 are accommodated in the discussions of claim 1 above.

Regarding claim 25, Yanagihara, modified with Staats, discloses the method comprising the steps of transferring a “command” for inquiring whether to permit the transfer of the program number of the program recorded in the recording medium, from the receiver to the

Art Unit: 2615

recording/reproducing device, during a playback mode, and receiving the program number of the program recorded in the recording medium, from the recording/reproducing device (see col.4, lines 5-46; and col.6, lines 34-67).

Regarding claim 26, Yanagihara, modified with Staats, discloses a method comprising the steps providing a program number of the intended program to be recorded, transferring a “command” for inquiring as to whether to permit the recording of the program, receiving a “response” for permitting the recording of the program from the recording device, transferring a “command” for performing the recording of the program corresponding to the program number provided in the steps above, and receiving a “response” for “notifying” of the permission of the recording of the program corresponding to the program number, from the recording device (see col.4, lines 5-46; col.5, line 54 to col.7, 58).

Regarding claim 30, the claimed limitations of claim 30 are accommodated in the discussions of claim 26 above.

Regarding claims 31,32&34, the claimed limitations of claims 31,32&34 are accommodated in the discussions of claim 1 above.

Art Unit: 2615

Regarding claim 35, the claimed limitations of claim 35 are accommodated in the discussions of claim 3 above.

Regarding claim 36, the claimed limitations of claim 36 are accommodated in the discussions of claim 1 above.

Regarding claim 39, the claimed limitations of claim 39 are accommodated in the discussions of claim 6 above.

Regarding claim 40, the claimed limitations of claim 40 are accommodated in the discussions of claim 7 above.

Regarding claim 41, the claimed limitations of claim 41 are accommodated in the discussions of claim 8 above.

Regarding claims 43&44, the claimed limitations of claims 43&44 are accommodated in the discussions of claim 10 above.

Regarding claim 45, the claimed limitations of claim 45 are accommodated in the discussions of claim 12 above.

Art Unit: 2615

Regarding claim 48, the claimed limitations of claim 48 are accommodated in the discussions of claim 3 above.

Regarding claim 49, the claimed limitations of claim 49 are accommodated in the discussions of claim 12 above.

Regarding claim 50, the claimed limitations of claim 50 are accommodated in the discussions of claim 7 above.

Regarding claim 58, the claimed limitations of claim 58 are accommodated in the discussions of claim 22 above.

Regarding claim 61, the claimed limitations of claim 61 are accommodated in the discussions of claim 25 above.

Regarding claims 62&63, the claimed limitations of claims 62&63 are accommodated in the discussions of claim 26 above.

Regarding claim 67, the claimed limitations of claim 67 are accommodated in the discussions of claim 30 above.

Art Unit: 2615

Regarding claim 68, the claimed limitations of claim 68 are accommodated in the discussions of claim 1 above, except the recording/reproducing device (see Fig.1&10A710B).

10. Claims 2,4-5,9,33,37,38&42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagihara et al in view of Staats and further in view of Coutts (US 5,742,730).

Regarding claims 2&4, Yanagihara and Staats fail to disclose wherein the input device is a remote controller. Coutts teaches a control system for rapidly and accurately positioning consumer-type VCRs to arbitrarily selected tape positions comprising a remote control module 42 (see Fig.1; col.4, lines 50-53, and col.9, lines 43-53). A remote control device provides the desirable capability of controlling a device from a distance. It would have been obvious to further modify Yanagihara by realizing Yanagihara with a remote controller, as taught by Coutts, which would provide the desirable capability of controlling the Yanagihara processor from a distance.

Regarding claim 5, the processor of Yanagihara, which is also a receiver, is connected to DVCR of Fig.10 of Yanagihara through a digital interface (see claim 1 discussion) . With Yanagihara now modified with the remote controller of Coutts, it would have been obvious that Yanagihara would control the recording/reproducing devices of Yanagihara.

Regarding claim 9, Coutts further teach wherein the “control command set” is an “audio/video control command and transaction set” (AV/C CTS) (see col.9, lines 43-61).

Art Unit: 2615

It would have been obvious further modify Yanagihara by adding the audio/video control command and transaction set" (AV/C CTS of Coutts, in order that Yanagihara would conform to the AV/C CTS standard.

Regarding claims 33&37, the claimed limitations of claims 33&37 are accommodated in the discussions of claim 2 above.

Regarding claim 38, the claimed limitations of claim 38 are accommodated in the discussions of claim 5 above.

Regarding claim 42, the claimed limitations of claim 42 are accommodated in the discussions of claim 9 above.

Allowable Subject Matter

11. Claims 13-16,46-47,51&52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

Art Unit: 2615

Regarding claim 13, the prior art of record fails to show or fairly suggest a multi-media system comprising a first and second digital interfaces, each of which is an IEEE 1394 interface where the multimedia system further comprises wherein the first digital interface comprises a first microcomputer including a transaction layer and a serial bus management layer, as software, for generating the program information control command based on the program information received from the input device, using a write transaction and a read transaction, a first link layer for adding an asynchronous header to the program information control command received from the first microcomputer to convert the program information control command into serial data, and a first physical layer for converting the serial data into an electrical signal.

Regarding claim 46, the prior art of record fails to show or fairly suggest a digital Audio/video device having a receiver for receiving a transport stream comprising a signal processor, a digital interface, an input device, the receiver is connected to at least one recording/reproducing device using the digital interface and the receiver and the recording/reproducing device are controlled by the input device, where the A/V device further comprises wherein the digital interface comprises a first microcomputer including a transaction layer and a serial bus management layer, as software, for generating the program information control command based on the program information input via the input device, using a write transaction and a read transaction, a first link layer for adding an asynchronous header to the control command generated by the first microcomputer to convert the control command into

Art Unit: 2615

serial data, and a first physical layer for converting the control command serial data into an electrical signal.

Regarding claim 51, the prior art of record fails to show or fairly suggest a digital audio/video recording/reproducing device for recording/reproducing a transport stream transferred from a digital A/V device, the recording/reproducing device comprising a digital interfaces, and a signal processor, and the digital interface comprises an IEEE 1394 interface where the digital A/V recording/reproducing device further comprises wherein the digital interface comprises a second physical layer for converting the program information command electrical signal, transferred from the first physical layer, into digital data, a second link layer for converting the program information command digital data into parallel data, and for removing the asynchronous header, and a second microcomputer including a transaction layer and a serial bus management layer, as software, for recording the program information on a predetermined region of a recording medium by recognizing the program information command during a recording mode, and for reading out the program information recorded in the predetermined region during a playback mode

Conclusion

13. Any inquiry concerning this communication or earlier communications from this examiner should be directed to Christopher Onuaku whose telephone number is (703) 308-7555. The

Art Unit: 2615

examiner can normally be reached on Tuesday to Thursday from 7:30 am to 5:00 pm. The examiner can also be reached on alternate Monday.

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

and (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be direct to the Group receptionist whose telephone is (703) 305-4700.

COO

9/7/01

Christopher O. Onuaku
CHRISTOPHER O. ONUAKU
PATENT EXAMINER